

New combinations of names for Palaearctic Braconidae (Hymenoptera)

C. van Achterberg

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C. van Achterberg, Afdeling Entomologie (Hymenoptera), Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands.

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The genus *Atopandrium* Graham, 1952 (Alysiinae: Alysiini) is synonymized with *Aphaereta* Foerster, 1862, *Wachsmannia* Szépligeti, (September) 1900 (Doryctinae: Doryctini) with *Hypodoryctes* Kokujev, (August) 1900, and *Promachus* Cresson, 1887 nec Loew, 1848 (Cenocoeliinae) with *Cenocoelius* Haliday, 1840. *Atopandrium loripenne* Graham, 1952, and *Trisynaldis conflucta* Fischer, 1958, are synonymized with *Aphaereta debilitata* Morley, 1933. *Aphaereta palea* (Papp, 1990), *Hypodoryctes spathiiiformis* (Ratzeburg, 1848), and *Cenocoelius aartseni* (van Achterberg, 1994) are new combinations. A lectotype is designated for *Aphaereta debilitata* Morley, 1933.

Introduction

The late Dr M.W.R. de Vere Graham drew my attention to the fact that his *Atopandrium loripenne* Graham, 1952 (Braconidae: Alysiinae) is a junior synonym of the enigmatic *Aphaereta debilitata* Morley, 1933. Rearing of this species by Dr L.E.M. Vet (at that time working at Leiden University) from lake-side detritus revealed that the males are brachypterous and the females are macropterous. The macropterous females have been known under *Trisynaldis conflucta* Fischer, 1958, a new junior synonym.

Recently, Mr P.J. Chandler (Slough) and Dr M.R. Shaw (Edinburgh) informed me that the name of the recently re-instated genus *Promachus* Cresson, 1887 (Braconidae: Cenocoeliinae) is pre-occupied by *Promachus* Loew, 1848 (Diptera: Asilidae).

Examination of the genus *Wachsmannia* Szépligeti, 1900 (Braconidae: Doryctinae) as part of my on-going revision of the genera of Braconidae revealed that it is a junior synonym of the genus *Hypodoryctes* Kokujev, 1900. Both share the strongly keeled first metasomal sternite (figs 19, 23, 24).

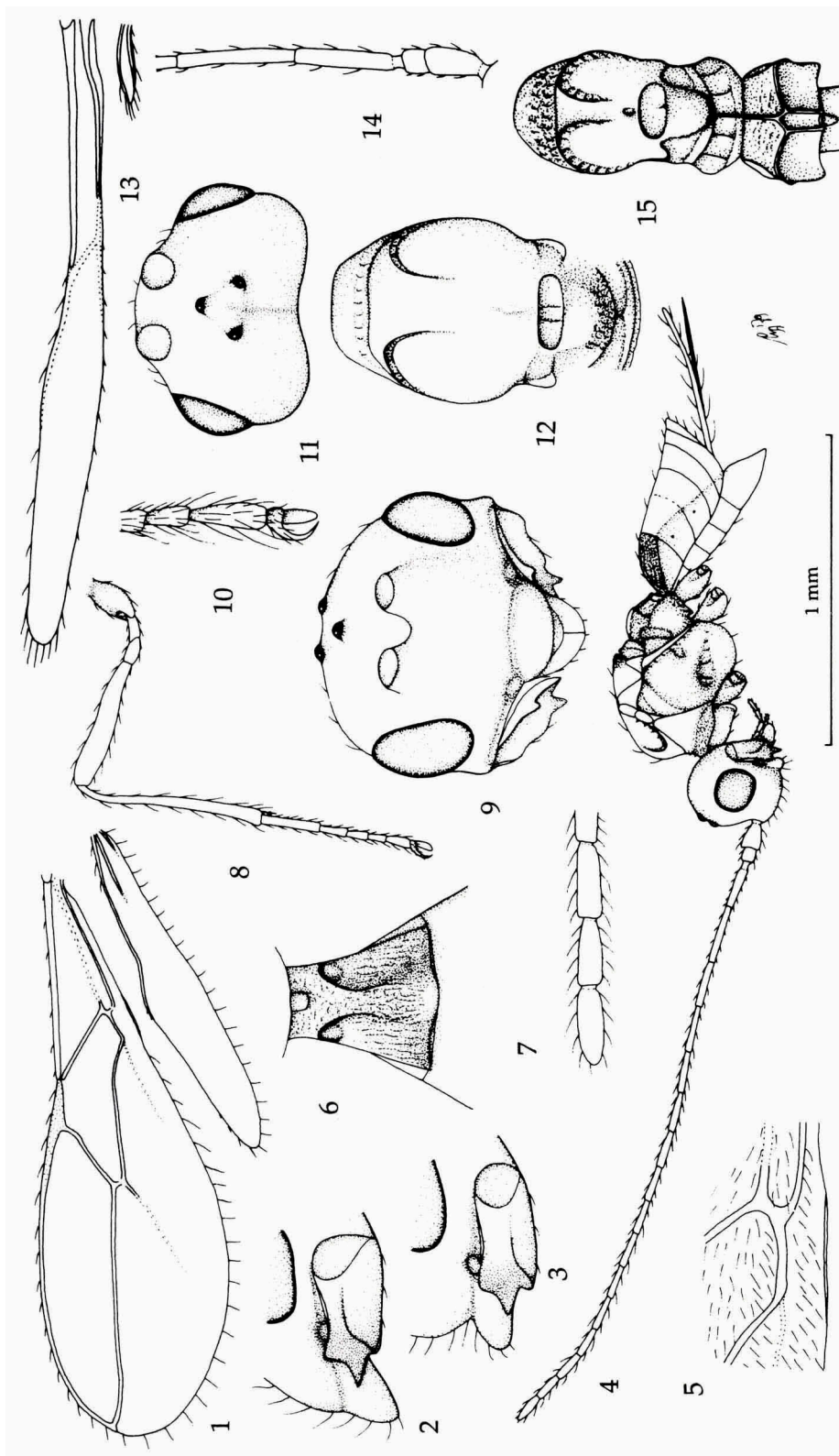
For the identification of the subfamilies, see van Achterberg (1990, 1993) and for the terminology used in this paper, see van Achterberg (1988, 1993).

Taxonomy

Aphaereta Foerster, 1862 (figs 1-15)

Aphaereta Foerster, 1862: 264; Shenefelt, 1974: 956-964; Wharton, 1994: 636-639. Type species (by original designation): *Alysia cephalotes* Haliday, 1833 [examined].

Atopandrium Graham, 1952: 20, fig. 1; Shenefelt, 1974: 982-983. Type species (by original designation): *Atopandrium loripenne* Graham, 1952. **Syn. nov.**



Figs 1-15, *Aphuereta debilitata* Morley, ♀. 1-5, 7-8, 10-12 of holotype of *Trisynaldis conflucta* Fischer, and 6, 9 of ♀, Netherlands, Waarder, 13-15 of paratype of *Aphuereta debilitata* Morley. 1, 13, wings; 2, mandible, full sight on first tooth; 3, mandible, full sight on third tooth; 4, habitus, lateral aspect; 5, detail of first subdiscal cell of fore wing; 6, first metasomal tergite, dorsal aspect; 7, apex of antenna; 8, hind leg; 9, head, frontal aspect; 10, inner hind claw; 11, head, dorsal aspect; 12, 15, mesosoma, dorsal aspect; 14, basal antennal segments. 1, 4, 8: 1 x scale-line; 2, 3, 5, 7, 10, 13, 14: 2.5 x; 6, 9, 11, 12, 15: 2.0 x.

Trisynaldis Fischer, 1958: 13, fig. 1, 1993: 481-484, figs 47-50 (key to species); Shenefelt, 1974: 1028; Wharton, 1994: 636 (synonymy with *Aphaereta* Foerster, 1862). Type species (by monotypy): *Trisynaldis conflucta* Fischer, 1958 [examined].

The strong sexual dimorphism led to the description of the two sexes as two different genera and species by Graham (1952) and Fischer (1958), respectively. The females is known as *Trisynaldis conflucta* Fischer and has been reared together with the aberrant brachypterous male by Dr L.E.M. Vet from lake-side detritus. The males are recognizable by the aberrant short wings with typical venation (fig. 13); the females have both veins 1-SR+M and 2-SR of fore wing absent (fig. 1). It is the only species of this species-group from Europe known, a second species has been described from Tunisia (Papp, 1990; Fischer, 1992).

Aphaereta debilitata Morley, 1933
(figs 1-15)

Aphaereta debilitata Morley, 1933: 160; Shenefelt, 1974: 957.

Atopandrium loripenne Graham, 1952: 20-22, fig. 1; Shenefelt, 1974: 982-983. **Syn. nov.**

Trisynaldis conflucta Fischer, 1958: 13, fig. 1, 1993: 481; Shenefelt, 1974: 1028. **Syn. nov.**

Material.— Holotype of *Trisynaldis conflucta*, ♀ (NMW), "[Austria], Ganglbauer, Neusiedl. S[ee]", "*Trisynaldis conflucta* Fi., holotype, det. Fischer", "Holotype"; lectotype of *Aphaereta debilitata*, ♂ (BMNH), here designated, selected out of the 6 ♂♂ present; 1 ♀ (RMNH), "España, Tarragona, M.J. Gijswijt", "delta del Ebro, 14-17.iv.1987"; 10 ♀♀ (RMNH), "Nederland, Waarder (Z.-H.), O[osteinde] 33, 6-10.ix.1972 (1 ♀), 11-15.ix.1972 (1 ♀), 12-14.vii.1973 (1 ♀), 30.vii-1.viii.1973 (1 ♀), 8-16.viii.1973 (1 ♀), 25-31.viii.1973 (1 ♀), 16-29.viii.1974 (2 ♀♀), 1-31.viii.1974 (1 ♀), 1-4.viii.1975 (1 ♀), [all] C. v. Achterberg"; 1 ♀ (RMNH), "Nederland, Lienden (Gld.), Schuylenburg, 2.ix.1970, K.W.R. Zwart"; 1 ♀ (RMNH), "Nederland, Hulshorst (Gld.), 20-22.vi.1975, J. v.d. Vecht, Malaise trap"; 1 ♀ (RMNH), "[Netherlands], Friesland, Fluessen Lake, in reed-detritus, 28.vi.1981, L. Vet"; 1 ♀ (RMNH), "Netherlands, Nieuwkoopse P[lassen], (De Meije), coll. 2.vii.1981, L. Vet"; 1 ♀ (RMNH), "Nederland, Wijster (Dr.), opposite Biol. Stat., 1-7.ix.1975, C. v. Achterberg"; 1 ♀ (RMNH), id., but 18-25.viii.1975; 4 ♂♂ + 3 ♀♀ (RMNH), "[Netherlands], Sluipwijk (Reeuwijk), coll. 2.vii.1981, em. 21-23.vii.1981, in reed-detritus, L. Vet"; 1 ♀ (RMNH), "Netherlands: L., St. Pietersberg, c. 150 m, 11-16.viii.1988, Mal. tr., B. v. Aartsen, RMNH'89"; 1 ♀ (RMNH), "Netherlands: Flevoland, Lelystad FU 6314, Oostvaarders-pl[assen], 29.vii-4.viii.1990, Mal. tr., *Sambucus/Salix*-wood, D. v.d. Hout & J. de Rond, RMNH"; 1 ♀ (RMNH), "Netherlands: Gld., Hurwenen, 10.i.1994, reared from drift, em. 1-8.ii.1994, A.P.J..A. Teunissen"; 1 ♀ (Haeselbarth Collection), "10", "[Germany], Herbst".

The female specimen from Spain has the L-shaped cell below pterostigma more slender than in typical *A. debilitata* (fig. 1), and resembles in this respect *A. palea* (Papp, 1990) **comb. nov.** (Fischer, 1993). The mandible is more flat, its teeth less acute than of Dutch specimens, the antenna consists of 17 segments (15 in *A. palea*) and the first metasomal tergite is distinctly widened posteriorly (subparallel-sided in *A. palea*).

Antennal segments of ♀ 17(15) or 18(4), of ♂ 18(3) or 19(1). Despite the name "*Trisynaldis*" which suggests that *Atopandrium* is related to *Synaldis* Foerster, 1862 (a synonym of *Dinotrema* Foerster, 1862), it is closely related to *Aphaereta* Foerster, 1862. Best shown by the enlarged fourth antennal segment and the reduction of veins cu-a and 1r-m of hind wing and veins 2-1A and 1-SR+M of fore wing. Munk (cited in Wharton, 1994) proposed the synonymization of *Trisynaldis* with *Aphaereta*, which was accepted by Wharton (1994) and from a cladistic view it is the best solution because in South America the *Aphaereta confusa* group (Wharton, 1994) occurs, which has similar venation of the fore wing, but is not closely related (Wharton, 1994).

Cenocoelius Haliday, 1840

Cenocoelius Haliday [in Westwood], 1840: 62; Shenefelt, 1970: 178; Tobias, 1971: 218 (translation, 1975: 87), 1976: 90; Tobias, 1986: 150-151; van Achterberg, 1994: 18-19, figs 54-65. Type species (by original designation): *Cenocoelius flavifrons* Haliday [in Westwood], 1840 ([examined], = ♂ of *Cenocoelius analis* (Nees, 1834)).

Caenocoelius Marshall, 1894: 271. Invalid emendation.

Laccophrys Foerster, 1862: 257; Shenefelt, 1970: 178. Type species (by original designation): *Laccophrys magdalini* Foerster, 1862 ([examined], = *Cenocoelius analis* (Nees, 1834)).

Promachus Cresson, 1887: 61; van Achterberg, 1994: 27-28, figs 77-88, 125-129 (not: *Promachus* Loew, 1848; *Promachus* Gistel, 1848; *Promachus* Stål, 1875). **Syn. nov.**

Recently, the genus has been re-instated (van Achterberg, 1994) and because it is a junior homonym, it has to be renamed or the group has to be included into the closely related genus *Cenocoelius* Haliday, 1840. After the publication of the generic revision of the *Cenocoeliinae* (van Achterberg, 1994) I have examined material from Costa Rica (INBIO) which is intermediate between *Cenocoelius* and *Promachus* sensu van Achterberg, 1994. Therefore, it is not justified to create a new name for the pre-occupied name *Promachus*, and the group is included in the genus *Cenocoelius*. In Europe only *Cenocoelius aartseni* (van Achterberg, 1994) **comb. nov.** is involved; several additional species belonging to this group occur in the New World and East Palaearctic region (van Achterberg, 1994).

Hypodoryctes Kokujev, 1900

(figs 16-35)

Hypodoryctes Kokujev, (August) 1900: 548; Shenefelt & Marsh, 1976: 1313; Papp, 1984: 178, 1987: 158, 161-163, 1991: 24-25; Belokobylskij & Tobias, 1986: 41; Belokobylskij, 1992: 908. Type species (by monotypy): *Hypodoryctes sibiricus* Kokujev, 1900.

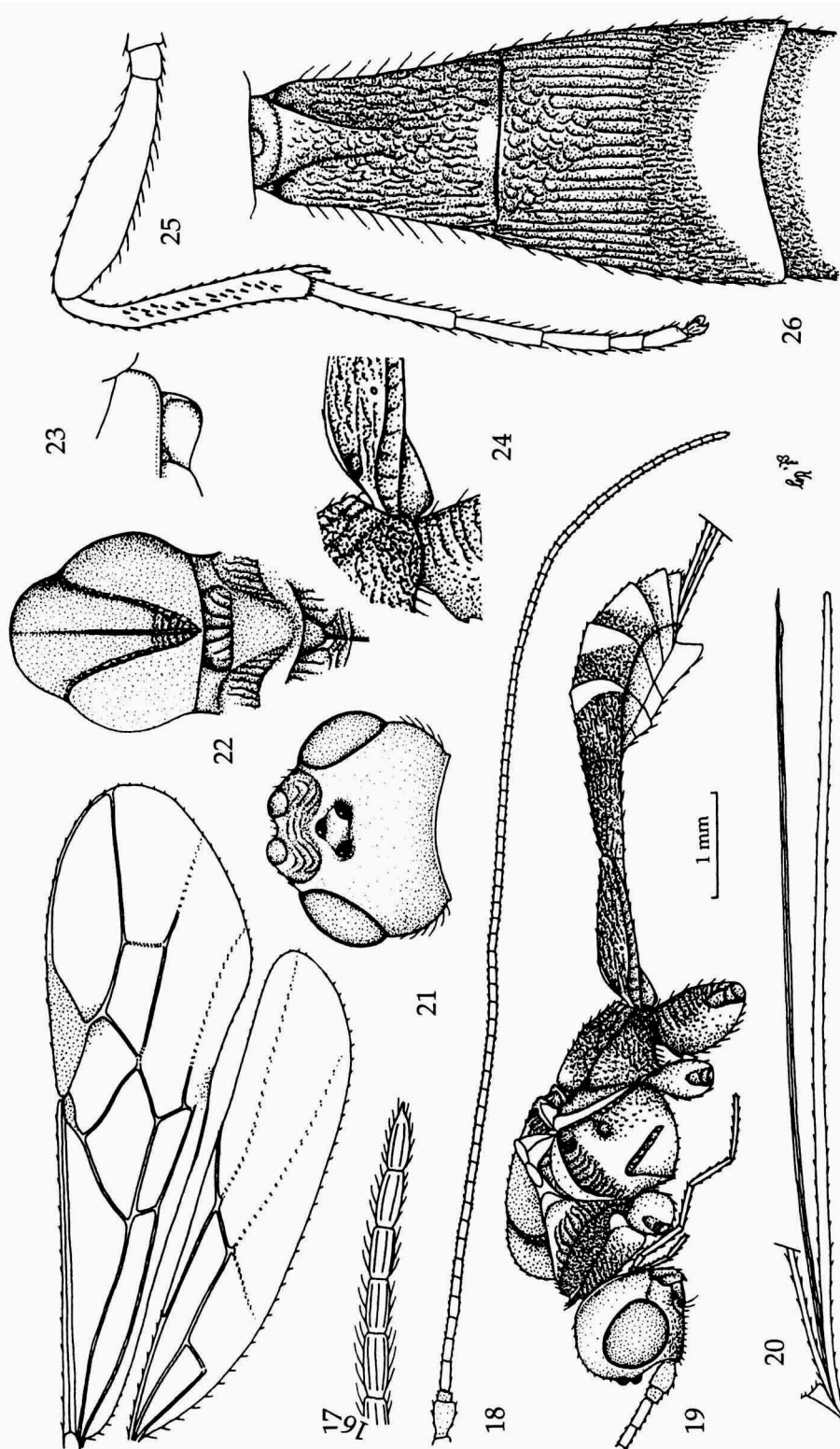
Wachsmannia Szépligeti, (September) 1900: 217; Shenefelt & Marsh, 1976: 1334; Papp, 1977: 107-108, 1984: 179, 1991: 23-24; Belokobylskij & Tobias, 1986: 41; Belokobylskij, 1992: 908 (as synonym of *Ontsira* Cameron, 1900). Type species (by monotypy): *Wachsmannia maculipennis* Szépligeti, 1900 ([examined], = *Bracon spathiiformis* Ratzeburg, 1848). **Syn. nov.**

Belokobylskij (1992) synonymized *Wachsmannia* with *Ontsira* Cameron, 1900, but because of the strongly keeled first metasomal tergite (figs 19, 23, 24) it is much more closely related to *Hypodoryctes* Kokujev and it seems justified to synonymize the two genera.

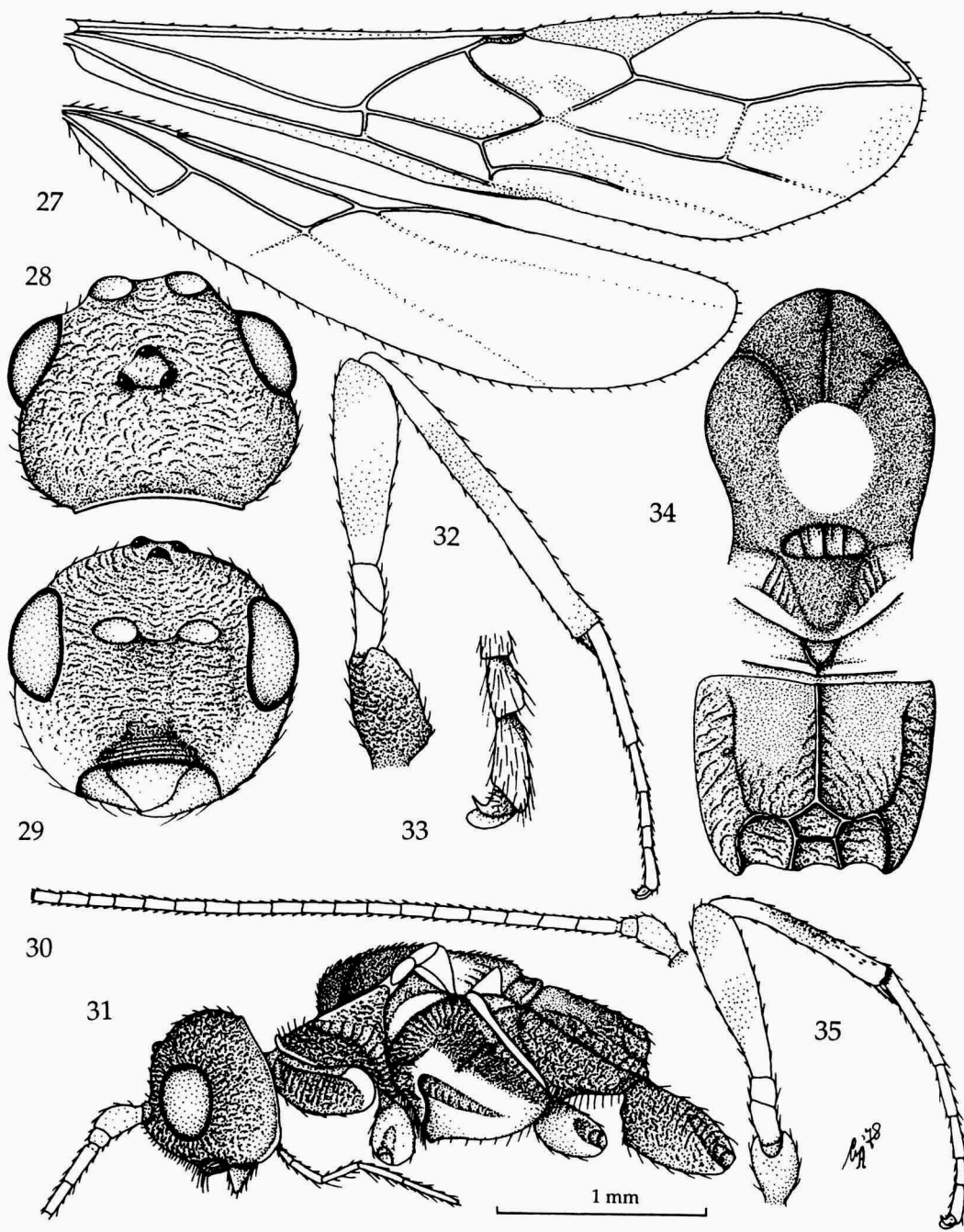
Note.— The type species (and the only known species) of the genus *Wachsmannia* Szépligeti, 1900, has been rare in collections and the genus has been inadequately characterized. Recently, Papp (1991) gave a summary of the existing knowledge, including some remarks on its distribution.

Acknowledgements and abbreviations

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Figs 16-22, 24-26, *Hypodoryctes sibiricus* Kokujev, ♀, Russia, Vladivostok; 23, *Hypodoryctes* spec., ♀, Japan, Shimashima-dani. 16, wings; 17, apex of antenna; 18, antenna; 19, habitus, lateral aspect; 20, ovipositor; 21, head, dorsal aspect; 22, mesosoma, dorsal aspect; 23, first metasomal sternite, apico-lateral aspect; 24, id., lateral aspect; 25, fore leg; 26, first-third metasomal tergites, dorsal aspect. 16, 18-20: 1.0 × scale-line; 17, 23: 5.0 ×; 21, 22, 24-26: 2.0 ×.



Figs 27-35, *Hypodoryctes spathiiiformis* (Ratzeburg), ♀, holotype of *H. maculipennis* (Szépligeti). 27, wings; 28, head, dorsal aspect; 29, head, frontal aspect; 30, antenna; 31, habitus (metasoma missing), lateral aspect; 32, hind leg; 33, outer fore claw; 34, mesosoma, dorsal aspect; 35, fore leg. 27, 30-32, 35: 1.0 ×; 28, 29, 34: 1.6 ×; 33: 2.5 ×.

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BMNH stands for the Natural History Museum, London, INBIO for Instituto Nacional de Biodiversidad, San José (Costa Rica), NMW for Naturhistorisches Museum, Wien, and RMNH for Nationaal Natuurhistorisch Museum, Leiden.

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